

**REMARKS**

A total of 54 claims remain in the present application. Reconsideration of this application is requested.

Referring now to the text of the Office Action:

- claims 1-9, 13-18, 21-29, 33-38, 41-47 and 49-52 rejected under 35 U.S.C. § 103(a), as being unpatentable over United States Patent No. 6,173,184 (Kikuchi et al) in view of United States Patent No. 5,546,464 (Raith et al); and
- claims 10-12, 19-20, 30-32, 39-40, 48 and 53-54 are objected to as being dependent on a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant appreciates the Examiner's continued indication of allowable subject matter in claims 10-12, 19-20, 30-32, 39-40, 48 and 53-54.

**Rejections under 35 U.S.C. § 103(a)**

As an initial matter, Applicant notes that the Examiner's claim rejections under 35 U.S.C. § 103(a) do nothing to advance prosecution of the present application, insofar as they offer no new grounds for rejection, and raise no new issues. This is evidenced by the fact that the Examiner's arguments in support of his rejection are merely a duplicate (virtually verbatim) of his arguments presented in the Final Action mailed May 31, 2005. The only substantive difference between the two actions is that the Examiner has abandoned his earlier references to Akita et al. and Ludwig in favour of Kikuchi et al and Raith et al, respectively. The fact that this substitution of references can be made without affecting the manner in which they are applied by the Examiner, evidences the similarity between the two sets of references. The fact that the rejection on the basis of Akita et al. and Ludwig had been withdrawn as a consequence of the most-recent Appeal is cause for concern as to the progress being made toward a fair, final and lawful disposition of this case.

As to the similarity of the two most recent actions, it will be noted that in both actions, the Examiner's primary reference (Akita in the Final Action of May 31, 2005, and Kikuchi et al in the present Non-final action) teach systems in which a cellular handset detects when its link with the base station has become degraded, and responds by triggering a hand-off procedure. In this respect, Kikuchi et al is no more relevant to the present invention than Akita et al., and for substantially the same reasons. The fact that Kikuchi et al includes the phrases "temporarily stop transmission" and "resume data transmission" does not alter this central fact. The mere presence of a set of keywords in a document does not, in itself, make that document relevant to patentability.

Applicant notes that the Examiner's previous reliance on Akita et al. was apparently based on the presence of the word "interrupt" appearing within that reference, since that was the only point of similarity between the Akita et al patent and the presently claimed invention. In the present case, the Examiner has located a reference that includes the words "temporarily stop transmission" and "resume data transmission", but is otherwise utterly unrelated to the presently claimed invention. Thus the Examiner is continuing his prior pattern of rejecting claims based on superficial semantic similarities, without regard to what his cited references actually teach. Such conduct is clearly improper, and cannot support valid claim rejections

The Examiner has cited the combination of Kikuchi et al and Raith et al, relying on arguments duplicated from his earlier citation of Akita et al. and Ludwig. As such, the Applicant may respond with arguments virtually identical to those advanced in previous responses. More particularly:

At paragraph 2 of the detailed action, the Examiner asserts that "Kikuchi et al. disclosed a wireless data communications network comprising a base station (FIG. 2/no 15), capable of bi-directional data communication with a wireless terminal (FIG. 2/no 1), wherein the base station having means for temporarily interrupting the bi-directional data transmission of the poorly performing wireless link" The Examiner admits that Kikuchi et al. do not teach that the traffic control is implemented in the base station. However, the Examiner apparently finds this element in Raith et al, and concludes that "it would have been obvious to one of ordinary skill in the art to provide such teaching of Raith et al to the communication system of

Kikuchi et al. in order to allow efficient handling of data transmission to effectively utilize resources for a zone, cell of a predetermined area within the network". For the reasons set forth below, this interpretation of the cited references is invalid, and the claim rejections based thereon cannot be sustained as a matter of law.

As in previous office actions, the Examiner has based his rejection on a gross mischaracterization of the teaching of at least his primary reference. In the present case, the Examiner's characterization of Kukichi et al's server unit 15 (FIG. 2) as a base station of a wireless communications network is directly contradicted by the teaching of Kikuchi et al. In particular, Kikuchi et al explicitly state that:

"a mobile radio terminal (to be referred to as a PS hereinafter) 48 which establishes a radio channel with a radio base station while moving" [col. 1, lines 23-25]

"... a PS is connected to a public radio base station (to be referred to as a public CS hereinafter) or a private radio base station (to be referred to as a private CS hereinafter) to perform data communication with a server unit in a network" [col. 2, lines 18-22 – Underlining added]

Thus it will be seen that Kikuchi et al. explicitly teaches the use of base stations within the wireless network.

"FIG. 2 is a block diagram showing the overall arrangement of the first system of the present invention. A network system for mobile radio communication will be described below. Assume that a slot error or a reduction in electric field strength occurs between a PS and a public CS during a wide-area information service in which, for example, the user transmits/receives data, outside the office, to/from a server unit connected to a network such as an office LAN through a high-speed network such as an ISDN or a public network such as a telephone line. The first system comprises a network 21 constituted by a server unit 15 and a client unit 20, a line switching unit 9 to which the network 21 is connected through a digital line interface section 14 and a high-speed network 11 or through an analog circuit interface section 13, a public

network 12, and the high-speed network 11, a radio connection unit 8 for generating position information on the basis of a PS position registration request from a public CS (1) 6 or a public CS (2) 7, a radio service control station 10 for recording the position information, and a group of unit cells. Each unit cell comprises the public CS (1) 6 or the public CS (2) 7 and a PS 1 which establishes a channel with the public CS (1) 6 or the public CS (2) 7 in the unit cell while moving.” [col 5, lines 29-51, underlining added]

Thus Kikuchi et al explicitly teach that the wireless network comprises mobile station (PS) 1 and base stations (CS) 6 and 7. The server unit 15 is connected to these elements via “a network such as an office LAN through a high-speed network such as an ISDN or a public network such as a telephone line”. The person of ordinary skill in the art will instantly recall that ISDN and a telephone lines are wire-line networks, and do not form part of a wireless network. As such, Kikuchi et al explicitly contradicts the Examiner’s characterization of the server unit 15 as a base station of a wireless network. In the system of Kikuchi et al. the base stations 6 and 7 form part of the wireless network, and the server unit 15 resides on a high speed network. It is impossible to confuse the server unit 15 and the base stations 6 and 7.

Furthermore, Kikuchi et al explicitly teach that the mobile station (PS) 1 monitors the quality of its link with a public base station (CS) 6. If the link quality deteriorates, the mobile station attempts to execute a “hand-off” procedure to establish a new link with another public base station CS 7. As such, it is impossible to rationally assert that Kikuchi et al teach or suggest the steps of “at the base station: examining performance of each wireless link to identify a poorly performing wireless link; and temporarily interrupting bi-directional data transmission over the poorly performing wireless link”, as required by the present invention. More particularly:

- The mobile station of Kikuchi et al monitors the performance of exactly one wireless link – its own. The mobile station unit of Kikuchi et al is utterly incapable of monitoring each wireless link of the network, and Kikuchi et al do not teach, suggest, or even remotely contemplate such operation.

- Kikuchi et al responds to degraded link performance by attempting a hand-off procedure to a new base station CS. According to Kikuchi et al, the mobile station and/or the server unit 15 temporarily interrupt data transmission during this procedure to prevent loss of data. However, in this case, interruption of data transmission is performed by the sever unit 15 – remote from the base station(s) and the wireless network. Kikuchi et al do not teach, suggest, or even remotely contemplate interruption of bi-direction data transmission at the base station.

United States Patent No. 5,546,464 (Raith et al) does not supply the missing teachings.

In particular, Raith et al teach a ciphered communication system and methods, in which the cipher is selectively resynchronized following initial channel acquisition of hand-off. However, Raith et al do not teach or suggest deliberately interrupting bi-direction data transmission. More particularly, Ludwig do not teach, suggest, or remotely contemplate either of the steps of "examining performance of each wireless link to identify a poorly performing wireless link", and "temporarily interrupting bi-directional data transmission over the poorly performing wireless link", as required by the present invention.

In light of the forgoing, neither of the Examiner's references teach or suggest the features of independent claims 1 and 21, and thus cannot sustain a claim rejection under 35 U.S.C. § 103(a). The dependent claims define further features of the invention, and thus are believed to provide still further grounds for patentability.

It is also worth noting that the Examiner's rejection under 35 U.S.C. § 103(a) is improper, for at least the reasons that: there is no "suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings" in the manner proposed by the Examiner; and the Examiner's combination has no "reasonable expectation of success" .MPEP. § 703.02(j)

With respect to the first criterion, Kikuchi et al teach a mobile unit which monitors the performance of its link with the base station. When the performance degrades, the mobile unit attempts to execute a hand-off procedure to establish a new link to another base station. Raith

et al provide a method of resynchronizing a cipher following the hand-off. While these systems may be implemented within the same network, they are entirely independent, and neither reference provides any motivation for combining them.

With respect to the second criterion, it is manifestly obvious that the Examiner's combination is inoperative, and therefore offers no reasonable opportunity for success. In particular, Kikuchi et al teaches that the mobile unit monitors its wireless link with the base station, and attempts to execute a hand-off procedure to another base station if the link performance degrades. Implementing this function in the base station, as suggested by the Examiner, results in a base station that monitors the performance of its wireless link with another base station, and attempts to execute a hand-off procedure to another base station if the link performance degrades. However, since wireless links between base stations are high-bandwidth fixed wireless links using narrow-beam antennas, the execution of a hand-off procedure of the type contemplated by Kikuchi et al simply will not work. Other well known techniques are used in the art to address the problem of performance degradation of high-bandwidth fixed wireless links. Obviously, Kikuchi et al teach a method and system that is operative only if it is implemented in the mobile station, and Kikuchi et al do not suggest otherwise. Even if this were not the case, implementing the method of Kikuchi et al in the base station would still not provide the features of the present invention, as discussed above, and so the Examiner's combination would still be unsuccessful.

In light of the foregoing, it is submitted that Examiner has failed to establish a case of *prima facie* obviousness, such as might support a rejection of claims under 35 U.S.C. § 103.

Applicant notes that the Examiner has issued no less than nine separate office actions, without once making a valid case of either anticipation (35 U.S.C. § 102) or *prima facie* obviousness (35 U.S.C. § 103). In the absence of valid grounds for rejecting claims of the application, Applicant is entitled to grant of a patent. Issuance of a Notice of Allowance is proper in this case, and such action is requested.

If any extension of time under 37 C.F.R. § 1.136 is required to obtain entry of this response, such extension is hereby respectfully requested. If there are any fees due under 37 C.F.R. §§ 1.16 or 1.17 which are not enclosed herewith, including any fees required for an extension of time under 37 C.F.R. § 1.136, please charge such fees to our Deposit Account No. 19-5113.

Respectfully submitted,

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